

Maimonides' Demonstrations: Principles and Practice

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It is well known that Maimonides rejects the Kalam argument for the existence of God because it assumes the temporal creation of the world, a premise for which he says there is no “cogent demonstration (*burhan qat'i*)” except among those who do not know the difference between demonstration, dialectics, and sophistic argument.”¹ By contrast, he claims to establish belief in the existence of God “through a demonstrative method as to which there is no disagreement in any respect” (I:71:182). Taken at his word, Maimonides’ proofs for the existence of the deity, like Aquinas’s five ways, have traditionally been read as models of medieval natural theology: of the power of human reason to independently establish revealed truth. In recent years, however, the same demonstrations have assumed a second kind of significance. For scholars, like myself, who argue that Maimonides holds severe views about the limitations of human knowledge of divine science and metaphysics, these demonstrations are the strongest conceivable counterevidence.² If Maimonides really held that humans cannot apprehend metaphysical truths

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1. Moses Maimonides, *The Guide of the Perplexed*, trans. Shlomo Pines (Chicago: University of Chicago Press, 1963), I:71:180. All references are to this translation; parenthetical in-text references are to part, chapter, and page.

2. The locus classicus for this view is Shlomo Pines, “The Limitations of Human Knowledge According to Al-Farabi, Ibn Bajja, and Maimonides,” in *Studies in Medieval Jewish History and Literature*, ed. I Twersky, 3 vols. (Cambridge: Harvard University Press, 1979), I:82–109. See also his “Les Limites de la Métaphysique selon Al-Farabi, ibn Bajja et Maimonide; Sources et Antithèses de ces Doctrines chez Alexandre d’Aphrodise et Chez Themistius,” *Miscellanea Mediaevalia* 13 (1981):

about the deity, how could he have *demonstrated* (or even *thought* he could demonstrate) the existence of God? If he does demonstrate it, then humans evidently do have knowledge of metaphysics. As one distinguished scholar has recently protested, it is nothing less than “perverse” to interpret Maimonides as “meaning that the existence of God is unknowable when he in fact prides himself on having demonstrated the existence of God in four different ways.”³

One might, of course, try to argue that Maimonides does not demonstrate the existence of God in *any* sense of the term ‘demonstrate’; but I shall not. In some sense of the term, he surely does. And that he uses the term ‘demonstration’ (*burhan*) in multiple, stronger and weaker, senses was already recognized by Maimonides’ medieval readers. Thus Samuel ibn Tibbon, the thirteenth-century translator of Maimonides’ *Guide of the Perplexed* from Arabic to Hebrew, translates ‘*burhan*’ by ‘*mofet*’, and ‘*dalil*’ (the Arabic term Maimonides uses for a weaker kind of proof or indication) by ‘*re’ayah*’. However, in the glossary (*Peirush ha-Millot ha-Zarot*) he appended to his translation, he writes:

The proofs [*ra’ayot*] about things are of two types: strong proof about whose truth there is no doubt and proof lower than it with respect to its truth. I reserved the name ‘*mofet*’ (demonstration) for the strong proof . . . and the other I gave the generic name ‘*re’ayah*’. But sometimes the second kind of [weaker] proof is called ‘*mofet*’ (demonstration) by way of transfer (*ha-’ayarah*) or extension (*harhavah*).⁴

211–25; “Dieu et L’Etre Selon Maimonide: Exégèse d’Exode 3,14 et doctrine connexe,” in *Celui qui est: Interprétations juives et chrétiennes d’Exode 3, 14*, ed. A. de Libera et E. Zum Brunn (Paris: Les Editions du Cerf [Collection “Patrimoines”], 1986), 15–24; and “The Relation between Maimonides’ Halakhic and non-Halakhic Works,” in *Maimonides and Philosophy*, ed., S. Pines and Y. Yovel (Dordrecht: Martinus Nijhoff, 1987). Pines concludes, on the basis of the limitations of the intellect with respect to knowledge of metaphysics, that Maimonides, like Kant, gives priority to the practical over the theoretical. For arguments drawing different ‘skeptical’ conclusions, see my “Maimonides in the Skeptical Tradition,” ms.; “Maimonides on the Growth of Knowledge and the Limitations of the Intellect,” to appear in Tony Levy, ed., *Maimonide: Traditions philosophiques et scientifiques médiévales arabe, hébraïque, latine*; “Logical Syntax as a Key to a Secret of the *Guide of the Perplexed*,” (in Heb.), *Iyyun* 38 (1989): 137–66; “Maimonides on Language and the Science of Language,” in *Maimonides and the Sciences*, ed., H. Levine and R. Cohen (Dordrecht: Kluwer, 2000), pp. 173–226; and *The Matter and Form of Maimonides’ Guide* (forthcoming).

3. Herbert A. Davidson, “Maimonides on Metaphysical Knowledge,” *Maimonidean Studies* 3 (1992–1993): 49–103, 86. See also Alfred L. Ivry, “The Logical and Scientific Premises of Maimonides’ Thought,” in *Perspectives on Jewish Thought and Mysticism*, ed. Alfred L. Ivry, Elliot R. Wolfson, and Allan Arkush (Amsterdam: Harwood Publishers, 1998), pp. 63–97, 70.

4. *Perush Ha-Millot HaZarot*, ed. Y. Even-Shemuel, *Sefer Moreh HaNevukhim* (Jerusalem: 1987).

So, close attention to Maimonides' choice of terms is as always essential, but it will not resolve all ambiguities; we must also look carefully at the substantive arguments in their contexts. In so doing, we find that what distinguishes the weaker proofs, or demonstrations, is that they do not yield conclusions that count as the content of knowledge in the strong sense that the dogmatic philosopher, the philosopher who believes that it is possible to have metaphysical knowledge, requires in order to achieve the state of intellectual perfection which is either to be identified with or leads to conjunction, or union, with the Active Intellect. Furthermore, I also argue, Maimonides' own demonstrations of the existence of God (and here I shall concentrate on the third of Maimonides' proofs) are of this weaker type. So, while it is indeed possible to demonstrate (in the weaker sense) the existence of God, the product of the demonstration does not constitute metaphysical knowledge of the strong kind relevant to conjunction with the Active Intellect and thereby to individual intellectual perfection.

Before turning to these arguments, let me emphasize that in distinguishing a weaker sense of 'demonstration,' I do *not* mean to suggest that it is unimportant, or that it is important only for political reasons, or that it is important only insofar as the community at large believes that we can demonstrate the existence of God (whereas the philosopher knows better). On the contrary, I believe that Maimonides' demonstrations are central to his *philosophical* project in the *Guide*. This project does not primarily aim at the establishment of doctrines or beliefs, either with apodeictic certainty or even with nearly conclusive evidence (even where such near certainty is possible). Instead it is primarily concerned with practices that constitute a way of living, although intellectual inquiry on theoretical topics is among the most important of these. Maimonides' demonstrations are, I argue, fundamental to the *Guide* not because of the epistemic pedigree of their products but because of the intellectual exercises in which they engage the demonstrator.

I

In II:1 of the *Guide*, Maimonides sets out four "speculations" concerning the existence of the deity. One question that should immediately strike the reader is, Why *four* (although we know from II:10, that the number four holds great fascination for Maimonides)? Maimonides' exposition does not suggest that he thought that any one of the proofs was better or more certain than another, or that they progress, say, in their degree of certainty. So, unless he was engaged in cataloguing the available demonstrations in the literature, why would one demonstration not suffice? And if he not simply enumerating four proofs, is there a structure to their presentation and order?

To make matters more puzzling, the combination of the first and third proofs also constitutes an odd pairing. The first proof argues from the facts of physical motion, based on fairly detailed principles of physics, to the existence of a first incorporeal mover.⁵ Because it is based on principles of physics, this first demonstration is generally considered a physical proof. The third proof, on the other hand, does not depend on any physical principles (although it depends on one physical, or sensible, datum). It reasons from various premises based solely on the notion of existence, or being, and on the modalities of possibility and necessity. Maimonides' medieval commentators (such as Efodi) already saw that the proof is a version of Avicenna's metaphysical proof for the existence of a being necessarily existent in virtue of itself. (We shall return to this interpretation, which has been recently challenged by Herbert Davidson.) However, Avicenna presented his metaphysical proof precisely because he believed that the physical proof is inadequate: that it only proves the existence of a first mover of the motion of the corporeal world. His metaphysical proof was meant to prove the existence of a deity who is the cause of the incorporeal as well as corporeal worlds and who is the cause of its existence and not merely motion. Hence, Avicenna argued that his own proof is more certain, noble, and general than the physical one. In reply, Averroes criticized the notions of possibility and necessity underlying Avicenna's proof and defended the proof from motion as the only valid proof for the existence of the deity.⁶ Whichever view we follow, it should be clear that the first and third proofs were regarded as rivals. Why, then, does Maimonides present both? Indeed how *can* he?

The second and fourth speculations also seem to divide along the same physical/metaphysical line. The second proof, from so-called logical symmetry, argues that just as there is a last thing that is moved and does not move, so there must be a first mover that is not itself moved. This argument, like the first, is based on motion; hence, it is a physical proof. The fourth speculation, which Maimonides explicitly calls "like [the third,] philosophic," argues from three premises, (1) the fact that we "constantly see" things pass from potentiality to actuality, (2) the principle that all actualizations of potentiality require a cause, and (3) the impossibility of infinite series of causes, to the conclusion that there must be "something that causes

5. Throughout this paper, and despite disagreements, I am much indebted to the seminal work of Herbert Davidson, *Proofs for Eternity, Creation, and the Existence of God in Medieval Islamic and Jewish Philosophy* (Oxford: Oxford University Press, 1987). On the first proof, see also Warren Zev Harvey, "Maimonides' First Commandment, Physics, and Doubt," in *Hazon Nahum: Studies in Jewish Law, Thought, and History presented to Dr. Norman Lamm*, ed. Y. Elman and J. S. Gurock (New York: Yeshiva University Press, 1997), pp. 149–62.

6. As Davidson shows, one issue here is whether proofs of the existence of a being fall within the scope of a science to whose subject matter the being is supposed to belong.

the passage from potentiality to actuality, that is perpetually existent in one and the same state, and in which there is no potentiality at all.”⁷ And because this first purely actual thing lacks all potentiality, it cannot be possible in itself and actualized through a cause; rather it must “exist in virtue of its essence.” Now, like the first proof for a first mover, this argument *prima facie* rests on the impossibility of an infinite series of causes. At first sight, one would also think that the passages from potentiality to actuality concern specific physical motions. In that case, the argument would demonstrate a first source of motion, and indeed Aristotle’s own introduction of this form of argument in the *Metaphysics* (II, 2) presents it in this light. However, a closer look shows that Maimonides does not present the argument as a proof of a first source of *motion*, but rather as a proof of a first cause of *existence*. He argues that if each cause in the series (and therefore the first one) has potentiality or, as he shifts to say, possibility in its essence, then (because every possibility must be realized at some time) it “would at some time become nonexistent.” And insofar as it is non-existent (at some time), it clearly cannot cause something else only potentially existent (at that time) to become actually existent. Indeed it would require a cause for its own existence. But by the same reasoning, if the latter cause contains potentiality (or possibility) in *its* essence, it also requires a cause, quickly drawing us into an infinite series of causes. Now, the problem with such a series is not, or not simply, the impossibility of an infinite series *per se*. Instead, as Maimonides makes clear in I:69, the sister chapter to these speculations, for any series of causes and effects, it is only the first cause in the series that is “in true reality the efficient cause of all [the] intermediaries” (I:69:168) and, hence, of the final term in the series. All the intermediate causes merely mediate, or communicate, the causal power that exclusively rests in the ultimate cause. Hence, if there is no first cause, there is no cause, period. The problem, then, with the infinite series of causes that would result if each member had (some) possibility in its essence (and would therefore require yet another cause to actualize *its* existence) is that such a series would lack an ultimate, or first, element, hence, a cause of existence. Thus this fourth argument demonstrates the existence of the perpetually existent deity that is necessary in itself as the first cause of *existence* and, like the third proof, it is metaphysical.⁸

The four proofs, in sum, fall into two clearly divided categories: the first two are physical, the second pair metaphysical. Furthermore, within each pair, Maimonides cites the second member to improve upon, or to pick up slack left by, the first member. Let me briefly illustrate this with respect to the pair of physical proofs. (I will return to the corresponding relation

7. Cf. *Metaphysics* IX, 8, 1049b; XII 6–7, 1071b–1072b for Aristotle’s own proof from potentiality to actuality, possibly the source of this argument.

8. That the fourth proof is related to the third is also noted by Warren Zev Harvey, *Physics and Metaphysics in Hasdai Crescas* (Amsterdam: J.C. Gieben, 1998), p. 74.

between the third and fourth speculations later.) The first demonstration proves the existence of a first mover but it only shows that the first mover is one, or contains no internal multiplicity, insofar as it is numerically one of its kind. In other words, if the first mover is merely one of (even if it is the first in) a class of movers, it would not be free of all multiplicity. Only the second proof further shows that the first mover is 'indivisible', simple, or internally one in the strong sense that it contains only one *notion*. Maimonides alludes to this qualification on the first proof when he says that it is absurd that there should be multiplicity in nonmaterial (and therefore strictly speaking nonindividuable) things "except when one of them is a cause and the other an effect"—for then each such being will "be endowed" with two "separately conceivable things" (II:4:259), one it shares with other nonmaterial things and one that distinguishes it from them. Now, this turns out to be *exactly* how the movers of the spheres, including the first mover of the outermost sphere, are distinguished from one another once different incorporeal intellects are posited as the respective movers of each of the spheres (as Maimonides does in II:4). Therefore, even if we identify the incorporeal mover demonstrated in the first proof with the first of the multiple incorporeal movers that Maimonides later posits, it turns out to be internally multiple. The second demonstration attempts to pick up this slack by arguing that for any being "endowed with two separately conceivable things," or notions, if one of them exists separately, so must the other. It follows that the unmoved mover is, by hypothesis, not composed of two separately conceivable things, hence, it is indivisible or internally simple. The second proof thereby completes the demonstration of the deity's unity.

Along these lines, we can explain the relation between the members of each pair of physical and metaphysical proofs. But why the two rival pairs of proofs? Despite the physical/metaphysical difference among them, each has a common structure to which Maimonides may be trying to draw our attention by combining them in one chapter. This structure is, to begin with, that of a demonstration which, among the various types of syllogistic arguments, is distinguished from the others (for example, dialectical arguments) by its premises.⁹ According to Aristotle, the premises of demonstra-

9. For an additional problem that would seem to throw into question all of Maimonides' demonstrations of the existence of God, see Marvin Fox, *Interpreting Maimonides* (Chicago: University of Chicago Press, 1990), pp. 71–72. According to Fox, Maimonides "differs from [the classical, i.e., Aristotelian] tradition" in his treatment of singular propositions (propositions containing singular terms whose subjects are single individuals); and the demonstrations of God's existence all involve singular propositions. Fox notes that throughout "the history of logic, from the time of Aristotle on, singular propositions have been a source of trouble because they do not seem to fit precisely into any of the established classifications," i.e., as universal or particular propositions. Therefore different logicians have assimilated them to the syllogistic in different ways, for example, among the Arabic Aristotelians, Al-Farabi treats them as particular and Avicenna as universal propositions. However, Maimonides, Fox says,

tions are (1) certainly and/or necessarily true, (2) primary and nondemonstrable (such as, definitions), (3) immediate, (4) better known than and prior to the conclusions that follow from them, and (5) the "causes" of their conclusions. In contrast, the premises of, for example, dialectical arguments are not true, certain, or necessary, but merely generally accepted opinions (*endoxa*). In his *Treatise on the Art of Logic*, Maimonides follows this Aristotelian typology, and cites examples, but does not attempt to be comprehensive. He distinguishes the premises of demonstrative syllogisms from those of dialectical syllogisms as those that consist in perceptual judgments

goes his own way, taking an independent stand for which there is no clear precedent. He distinguishes singular propositions from all other types and makes a special point of not assimilating them to any other form of proposition. He tells us nothing at all, however, about how to integrate these propositions into the standard system of logic.

Since the *Guide* inevitably contains many discussions using the singular term 'God,' "we face difficult problems of interpretation if we do not have a proper logical understanding of how to classify and deal with singular propositions" (p.72). Thus, according to Fox, Maimonides deliberately but covertly throws all metaphysical propositions about the deity into question.

Notice, to begin with, that in the context in which he raises this issue Fox is countering Leo Strauss's views concerning Maimonides' use of deliberate contradictions; but if Fox's point is correct, its ramifications are much more radical than *any* of Strauss's esoteric theses: the interpretation of virtually *all* substantive metaphysical claims in the *Guide* is thrown into question, whatever that would mean. In fact, however, I do not believe that Fox has raised a real difficulty. He is correct to remind us that singular propositions have been a source of endless debate among Aristotelians and Aristotle scholars in part because Aristotle generally discusses universal and particular propositions rather than singular ones (which he never gives as examples of premises of valid inferences). However, it is not true that Aristotle never discusses singular propositions, and there are various explanations for his failure to include them in his systematic discussions of syllogistic form. These range from W. D. Ross's suggestion that Aristotle is primarily concerned with science and science is not concerned with individual objects (or, for that matter, with terms of the highest generality, categories, which are also not discussed), to Lukasiewicz's proposal that Aristotle only discusses terms that can occur both as subject and as predicate in the figures (which excludes singular terms), to Patzig's detailed claims that Aristotle only explicitly deals with expressions that satisfy the axioms of a particular theory of relations among terms, axioms that singular terms do not satisfy. But whatever explanation one accepts for Aristotle's omission of singular terms from his explicit discussion, it is agreed by everyone that there must be a way to include singular terms within the overall theory, either by subsuming them under universal propositions or under particular propositions or under some hybrid of the two. No one to my knowledge thinks either that singular propositions cannot ultimately be explained and, therefore, cannot be used in reasoning or, what would seem to be an equally reasonable conclusion to draw, that we should reject the syllogistic because it fails to account for singular terms.

Furthermore, it is misleading to suggest, as Fox does, that Maimonides "goes his own way, taking an independent stand for which there is no clear precedent." Maimonides begins chap. two of the *Millot Ha-higayon*, his *Treatise on the Art of Logic*,

or first intelligibles rather than generally accepted opinions.¹⁰ But he adds: "Know that there are conditions of the demonstrative syllogism which cannot be discussed in this treatise."¹¹

Now, the difference between demonstrative and nondemonstrative (dialectical) premises is said to make the difference for Aristotle between scientific and nonscientific knowledge. However, recent commentators on Aristotle have argued that, notwithstanding his official stance that *only* demonstrative arguments lead to scientific knowledge, in Aristotle's actual scientific practice dialectical argument is more central than demonstration. This in turn suggests that higher cognitive status should be given to dialectical syllogisms than Aristotle's explicit statements would imply. Following the lead of the Aristotle scholars, several Maimonides scholars such as Arthur Hyman and Joel Kraemer have also argued that Maimonides places

with an example of affirmative and negative singular propositions; goes on to discuss and classify universal and particular propositions, some definite, others indefinite, some affirmative, others negative; and then adds: "When, however, the subject of a proposition is a single individual, e.g., 'Zayd is an animal,' 'Amr writes,' 'Bekr is wise,' we call it a singular proposition." At the conclusion of the chapter, he summarizes the six kinds of propositions, including among them "the singular which may be likewise affirmative or negative" (Maimonides, *Treatise on the Art of Logic*, ed. I. Efron, *Proceedings of the American Academy for Jewish Research* 34 (1966): chap. II, p. 36). Such a straightforward presentation would suggest that, while Maimonides does not commit himself to a particular treatment of singular terms and does not elaborate on how he would incorporate them into his logic, he saw nothing especially problematic about them. His silence need not hint at a secret or be taken as evidence of "an independent stand for which there is no clear precedent." One need only compare Maimonides' *Treatise* to other works in logic written by his contemporaries to know that, for all its riches, it is far from comprehensive. Indeed in at least one other context, Maimonides refers to additional conditions on the syllogistic which "cannot be discussed in this treatise" (chap. VIII, p. 49).

Finally, in support of his position, Fox notes the editor Israel Efron's "wisdom" in observing that "the significance of [the *Treatise*] lies not in where it agrees . . . but where it shows discrimination in daring to disagree." Yet, in his Introduction, Efron himself cites A1-Ghazali's statement in his *Intentions of the Philosophers* (with which Maimonides was almost certainly familiar) that science does not concern itself with individuals which is reason enough not to elaborate on them in a logic; he adds that, while "the impression is that [Maimonides] regards [the singular proposition] as a class in itself," his position is not unique but "in agreement with an anonymous work contained in Thomas, Opusc. 44, *Summa Totius Logicae, De Interp.* c. 6" (23). Neither of these observations would suggest a hidden agenda or anything deeply problematic about Maimonides' view of singular statements about God. Indeed, contra Fox, the case of singular propositions is not an instance where "Maimonides does not follow an established school" (p. 72 n.10).

10. See Maimonides' *Treatise on the Art of Logic*, chap. VIII, p.48. For a valuable survey of these issues, see Arthur Hyman, "Demonstrative, Dialectical, and Sophistic Arguments in the Philosophy of Moses Maimonides," in *Moses Maimonides and His Time*, ed. E. Ormsby (Washington, DC: Catholic University of America Press, 1989).

11. Hyman, "Demonstrative, Dialectical, and Sophistic Arguments," p. 49.

more weight on and gives higher cognitive value to (Aristotelian as opposed to Kalamic) dialectical arguments than we have been accustomed to think.¹² Hence, they argue, even if we cannot *demonstrate* metaphysical propositions, we can have *knowledge, dialectical* knowledge, of them. I will not enter this discussion here. Suffice it to say that even if Maimonides gives Aristotelian dialectical argument an important cognitive role in science, dialectic cannot do the work genuine demonstration does: namely, yield the kind of apprehension appropriate to union or conjunction with the Active Intellect, hence, the caliber of metaphysical knowledge that the dogmatist requires.

One feature shared by all four of Maimonides' "speculations" is, then, their demonstrative character. But this is not all. Rather than focus on the criteria of certainty and necessity for demonstrative premises, I now want to focus our attention on the last condition: that the premises of a demonstrative syllogism furnish the *cause* of the conclusion. Recall, first, that what Aristotle and, following him, Maimonides mean by a 'cause' is not, as we post-Humeans think, a prior event that brings about its later effect. Rather an Aristotelian cause (of any of the four kinds) is an explanatory factor; an answer to a why-question, the clause that follows the connective 'because' in statements of the form '*P* because *Q*.'¹³ Another way to put the condition in question is that in order to have demonstrative scientific knowledge of something, knowledge that consists in a grasp of the demonstrative syllogism whose conclusion is that thing, one must know its cause because knowledge requires understanding and "we only understand when we know the explanation," that is, the cause (*Post An.* I.2, 70b:30–1). Given Aristotle's additional view that scientific knowledge is deductive (i.e., syllogistic), and the principle that knowledge of something requires apprehension of its cause, these conditions come together in the claim that the premises of a demonstration or, more precisely, its middle term must provide the cause, or explanation, of the conclusion.

Now, full-fledged demonstrations of this kind, demonstrations that furnish a cause, or *explanation*, of the conclusion by way of their middle term, both establish the fact *that* and explain *why* the conclusion is true. In Aristotle's language, they are "demonstrations of the reason why" (*to dioti*); in scholastic terminology, they are demonstrations *propter quid*. In contrast, syllogistic deductions that argue from effects to the existence of possible causes merely establish *that* the conclusion is true, knowledge of the fact (*to*

12. Hyman, "Demonstrative, Dialectical, and Sophistic Arguments"; Joel L. Kraemer, "Maimonides on Aristotle and Scientific Method," in *Moses Maimonides and His Time*; Kraemer, "Maimonides' Use of (Aristotelian) Dialectic," in *Maimonides and the Sciences*, pp. 111–130. Although he does not put it in exactly these terms, see also Ivry, "The Logical and Scientific Premises."

13. See Richard Sorabji, *Necessity, Cause, and Blame: Perspectives on Aristotle's Theory* (Ithaca, NY: Cornell University Press, 1980).

hoti), not *why* it is. Deductions of this kind are, in scholastic terminology, demonstrations *quia* ("demonstrations of the fact").¹⁴

This distinction was developed in various directions by Aristotle's successors. Alexander of Aphrodisias, for example, makes a causally prior component a strict condition on demonstration: "there is no demonstration through what is posterior."¹⁵ The distinction was also familiar within Arabic Aristotelianism. Most important for our purposes, Avicenna, like Alexander, emphasizes the causal condition on a demonstration (*burhan*) when he constructs his own argument for the existence of the being necessarily existent in itself. This being, he says, is "free from causes, it has no genus or differentia or definition, and there is no demonstration of it, but it is the demonstration of all things."¹⁶ Instead of a demonstration, Avicenna says that we can give a 'proof' (*dalil*) or indication of the existence of this being, that is, a syllogism in which the middle term is an effect rather than a cause of the conclusion. In particular, we can argue from the actual existence of possibly existent beings to the existence of the being necessarily existent in itself, even though the former is an effect, not the cause, of the latter. But this is just a proof, not a demonstration, for Avicenna.

Not all philosophers within the medieval Aristotelian tradition took this line. Most famously, Aquinas argues at length in the *Summa Theologica* I.2.2 that, while we cannot demonstrate the existence of God through the cause, or *propter quid*, we can demonstrate His existence through its effects (*quia*). Suppose to the contrary that Anselm's ontological argument were valid and God's essence was that of the being than which no greater can be conceived to exist; then the ontological argument would be a demonstration *propter quid* of God's existence. But, Aquinas counters, humans cannot know God's essence. Only God Himself could have the knowledge that is necessary for a demonstration *propter quid* of His own existence.¹⁷ Instead

14. See Aristotle, *Post. An.* I, 13, 78_b22–79_a15; for a thorough review of the history of the general distinction through the Renaissance, see W. A. Wallace, *Causality and Scientific Explanation*, 2 vols. (Ann Arbor: University of Michigan Press, 1972), vol. 1; on the sixteenth-century uses, see, P. Barker and B. R. Goldstein, "Realism and Instrumentalism in Sixteenth Century Astronomy: A Reappraisal," *Perspectives on Science* (1998): 232–58.

15. Alexander of Aphrodisias, *On Aristotle's Metaphysics* 1, trans. W. E. Dooley, S.J. (Ithaca, NY: Cornell University Press, 1989), 13:30, 34; for further discussion, see Pines, "Translator's Introduction," p. 1xixf., and Davidson, *Proofs*, pp. 298–99 and references therein. A classic source is *Liber de Causis*, trans. Dennis J. Brand (Milwaukee, WI: Marquette University Press, 1984), V:57–63, 24–25.

16. *ʿUyun al-masaʿil*, ed. M. Cruz Hernandez; repr. and trans. in George Hourani, "Ibn Sina on Necessary and Possible Existence," *Philosophical Forum* IV (1972): 76. On Avicenna's position in this regard, see also Davidson, *Proofs*, p. 298–99, and D. Gutas, *Avicenna and the Aristotelian Tradition* (Leiden: Brill, 1988), pp. 316–18.

17. For independent reasons, to be sure, God neither needs to demonstrate His own existence *propter quid* (He knows of His own existence directly) nor could He, if such a proof requires a stretch of discourse and He has no discursively definable essence. (I am indebted here to an anonymous referee.)

we humans can know God (only) through His effects, that is, the natural world; hence we can demonstrate His existence (only) *quia*. These effects are metaphysically posterior to their cause, but they are epistemically more accessible and prior *for us*, better known *to us*, and therefore can ground a certain kind of certainty. In other words, demonstrations *quia*, from the effect, admittedly establish *that* something is the case without establishing *why*, without providing a theoretically deep explanation in the way that a demonstration *propter quid* would. Yet Aquinas insists that they are demonstrations: they yield knowledge that is weaker than what is furnished by the highest demonstrations but it is none the less rationally certain.

Now, given these two competing positions on syllogistic arguments from effects, Avicenna's which denies them the status of demonstrations and Aquinas' which confers it, what is Maimonides' stand? Both the first and third demonstrations begin from premises about effects: the first proof begins from a claim about motion, or change, in the sublunar sphere, the third proof from the actual existence of sensible beings. Hence, both proofs are demonstrations *quia*. Does Maimonides take them to be *demonstrations*?

As ibn Tibbon whom we cited earlier tells us, Maimonides' use of 'burhan' provides no unequivocal test since he sometimes uses it figuratively or loosely.¹⁸ Maimonides himself also nowhere explicitly draws the *propter quid/quia* distinction. But at least one of his major medieval commentators, Moses of Narbonne (Narboni), understood the phrase 'burhan qatî' (literally: 'a cutting demonstration,' that is, conclusive or decisive; translated by ibn Tibbon as 'mofet hotekh' and by Pines as 'cogent' (p. 180)) in exactly these terms.¹⁹ In his commentary on *Guide* I:71, Narboni writes:

This question, i.e., the eternity or creation of the world cannot be apprehended (*yagî'u*, lit: reached) by a decisive demonstration (*mofet hotekh*) because it is a point before which the intellect stops (*ma'amad hasekhel*).²⁰ By a 'decisive demonstration' (*mofet hotekh*) he [Maimonides] means what Aristotle called an 'absolute demonstration'

18. On ibn Tibbon's logical writing, see now James T. Robinson, "Samuel ibn Tibbon's *Commentary on Ecclesiastes* and the Philosopher's Proemium," forthcoming in *Studies in Medieval Jewish History and Literature*. On *mofet hotekh/burhan qatî*, see fn.35.

19. See, however, the use of the term in II:15:290 (which Pines also translates as "cogent demonstration") where it does not seem to stand in opposition to a *re'ayah*: ad. loc., 291, n.10 on the translation of the term *hujaj* which, rather than *dalil*, is the term contrasted with demonstrations in this chapter; II:2:252 where Maimonides explicitly claims that the necessary existence of the deity is "proved by cogent (*qatî*) and certain (*yaqîn*) demonstrations, regardless of whether the world has come into being in time after having been nonexistent or whether it has not come into being in time after having been nonexistent"; and Israel Efros, *Philosophical Terms in the Moreh Nebukim* (New York, 1924), p. 70. These passages require additional investigation.

20. On this phrase, see also I:31:66–67, II:25:327

(*mofet muhlat*) which is a demonstration of the cause (*sibbah*) and the fact (*metzi'ut*). And this is true, because this species of demonstration is very rare (*yeqar metzi'uto*). Only a few are to be found in natural notions, and the existence of God is also explained (*hiṭḥa'eir*) in a demonstration by proof (*mofet re'ayah*), that is to say, from the posterior [effects] (*min ha-mit'ahrim*), not from the prior [causes] (*lo' min ha-qodmim*), because He, may He be blessed, is prior to all and nothing is prior to Him. And how could [His existence] be explained by a demonstration from the cause (*mofet sibbah*) and He, may He be blessed, is the cause of everything and everything is His creation (*beru'av*)?²¹

It is clear here that Narboni is explicating Maimonides' own phrase for a decisive demonstration '*burhan qatī*' as a demonstration *propter quid*, a demonstration both of the fact stated in the conclusion of the syllogism and of the reason why. He distinguishes it, in turn, from demonstrations *quia* (*mofet re'ayah*), and explicitly identifies the demonstrations for the existence of the deity as nothing more than *quia* proofs. A possible source for Narboni's identification of *mofet hotekh*, a 'decisive' demonstration, that is, a demonstration that is *propter quid*, with what he calls a *mofet muhlat*, an 'absolute' demonstration, may have been Averroes who uses this terminology while drawing the *propter quid/quia* distinction in both his *Commentary on the Prior Analytics* and *Long Commentary on the Metaphysics* in the course of criticizing (incorrectly, by the way) Avicenna's idea that metaphysics proves the existence of the Necessary Existent, or First Principle. Commenting on Aristotle's statement that "it is plainly evident that no master of any art can demonstrate the proper principles of his own art" (*Ana. Pr.* I, 9, 76a16–17), Averroes adds: "That is, by an absolute demonstration (*demonstratione absoluta*) which shows cause and existence. For the master of particular arts can demonstrate the causes of his own subject through signs, or a posteriori."²² Likewise, he contrasts the "method of an absolute demonstration (*al-burhan al-mutlaq*) with "the method that proceeds from posterior propositions to prior propositions or that which is called signs (*al-dala'il*)."²³ Only by the latter can one prove the existence of the first principle or first mover.

Maimonides, as I said, gives us nothing as explicit as Averroes or

21. *Der Commentar des Rabbi Moses Narbonensis su dem werke More Nebuchim des Maimonides* (Heb.), ed. J. Goldenthal (Wien, 1852), 15b–16a.

22. *Commentary on the Prior Analytics*, in the *Commentaria Magna*, Com. 70, f. 154 DF, cited in H. A. Wolfson, "Averroes' Lost Treatise on the Prime Mover," in *Studies in the History of Philosophy and Religion*, ed. I. Twersky and G. H. Williams, 2 vols. (Cambridge: Harvard University Press, 1975), I:402–29, 411.

23. *Commentary on the Metaphysics*, cited and trans. in Wolfson, "Averroes' Lost Treatise," p. 414, from *Tafsir ma ba' ad at-tabī' at*, ed. M. Bouyges (Beirut: 1938–1948). On Al-Farabi's use of the term '*mutlaq/mutlaqa*' in application to propositions (not demonstrations or syllogisms), as in '*muqaddama mutlaqa*,' which does *not* have the sense of *propter quid* but rather that of 'assertoric,' see J. Lameer, *Al-Farabi and Aristotelian Syllogistics* (Leiden: Brill, 1994), pp. 55–62.

Narboni, but, since the distinction was clearly taken to heart by his predecessors, contemporaries, and successors, I think we can safely assume that Maimonides would have known and acknowledged it as well.²⁴ Let me point out two passages where he appears to be assuming the distinction and, like Avicenna and Averroes, to be saying that demonstrations *quia* do not furnish us with knowledge on a par with the understanding furnished by arguments whose middle terms are causes that explain their conclusions.

The first passage reads:

There is an immense difference between guidance leading to a knowledge of the existence of a thing and an investigation of the true reality of the essence and substance of that thing. The reason is that guidance leading to the knowledge of the existence of a thing can be had even if that should be through the accidents of the thing or through its acts or through a relation—which may be very remote from the thing (I:46:97).

Maimonides draws two distinctions here. The first distinguishes between existence and essence, the second between “guidance leading to knowledge” and “an investigation of true reality.” Although the two are not unconnected, it is the latter that concerns us: the difference between knowledge simply *that* something is the case, the fact, inferred from its accidents, relations, or acts—all effects—and knowledge *why* something *must* be the case, its causes or reality, from which we infer that it is the case in fact. Maimonides goes on to illustrate what he means by “guidance leading to knowledge” using the parable of the ruler of the city, whose existence is “proven” from his appearance, relations, acts, and, most famously, the existence of law and order in the city, “the cause of which is the fear of the ruler and the anticipation of the punishment he metes out” (I:46:98). All of this, Maimonides concludes, “is a proof (*dalit*) of the fact that this city has a king.” *Prima facie*, the ruler of this parable corresponds to the ruler of I:70 who is identified with the “rider of the heavens,” the “deity who is the mover of the highest heaven” and whose existence is proven in the first proof of II:1. Note that the issue is not the difference between knowing the *existence* versus knowing the *essence* of God, but rather the difference between proving simply the fact that God exists versus proving the fact of His existence by way of a reason, or cause, why He must exist. What makes both the example of I:46 and the first proof for the existence

24. The references cited in the text are far from exhaustive. See, for example, Al-Farabi, “The Attainment of Happiness,” 4:18–5:10, 6:11–7:9, 9:17–10:2, in *Al-Farabi's Philosophy of Plato and Aristotle*, trans. M. Mahdi (New York: The Free Press, 1962); Al-Ghazali, *Treatise on Logic: Proemium and Fifth Maneria*, trans. J. L. Longeway from C. H. Lohr, *Traditio* 21 (1965): 223–90, ms., Proemium 2. A full history of the *propter quid/quia* distinction remains to be written.

of God a “proof” simply of the fact is that the premises for the conclusion are effects, not causes.²⁵

The second passage is a statement that has been a source of controversy since Samuel ibn Tibbon. At the end of II:24, the chapter in which Maimonides addresses the various incompatibilities between Ptolemaic astronomy and Aristotelian cosmology that led to the so-called Andalusian Revolt, he concludes

Regarding all that is in the heavens, man grasps nothing but a small measure of what is mathematical; and you know what is in it. . . . [T]he deity alone fully knows the true reality, the nature, the substance, the form, the motions, and the causes of the heavens. . . . For it is impossible for us to accede to the points starting from which conclusions may be drawn about the heavens; for the latter are too far away from and too high in place and in rank. And even the general conclusion that may be drawn from them, namely, that they prove the existence of their Mover, is a matter the knowledge of which cannot be reached by human intellects. (II:24:326–27)

For present purposes, the difficulty is the last sentence that seems to contradict Maimonides’ statements elsewhere in the *Guide* that the “revolution of the heaven” is “the greatest proof through which one can know the existence of the deity” (I:70:175; I:9:34–35; II:18:302).²⁶ Based on a marginal notation of ibn Tibbon, one scribe went so far as to emend the text to eliminate the contradiction. Recent translators of the *Guide* and its commentators have offered a variety of textual solutions.²⁷ I do not intend to enter into translation issues. In light of our previous discussion, I think we can appreciate the philosophical force of Maimonides’ statement regardless of the translation questions.

25. Maimonides begins this passage by referring the reader to an earlier passage where he says he already drew the distinction. Most commentators take the pertinent chapter to be I:33:71. I am not confident that this is the correct antecedent, but I cannot identify an alternative at this time. On this chapter and the parable of the king, see now Harvey, *Physics and Metaphysics*, pp. 60–65, who relates the chapter, among other Maimonidean texts, to a midrash in Genesis Rabbah 39:I (and parallels) according to which Abraham arrived at “an illuminated castle” (*birah doleget*) and exclaims: “Could you say this castle has no governor (*manhig*).” On this parable and its interpretation, see also II:11:275 and III:13:454. I intend to discuss these chapters elsewhere.

26. See also *Mishneh Torah*, “Laws of the Foundation of the Torah,” 1:5, 7 in which Maimonides argues from the eternity of the motion of the spheres both for the existence of a nonbodily, nonfinite Mover and for His incorporeality and unity.

27. On ibn Tibbon’s translation, see Pines’s n.12 on *Guide* II:24:327. For discussion of the problematic text, its translation, and solutions to the contradiction, see Kraemer, “Maimonides on Aristotle,” p. 79; Munk, *Guide* II:194–95, n.4; Kafih, ad.loc.; Harvey, “Maimonides’ First Commandment, Physics, and Doubt,” and Davidson, “Maimonides on Metaphysical Knowledge.”

To begin with, the statement that something is the “greatest proof” or that “that there is no proof like it” may mean nothing more than that there is no proof greater or better than it. It need not mean that the power of the proof is itself strong or great; it may simply be the best we can do with our limited intellectual resources. Now, throughout this chapter, as I have argued elsewhere, Maimonides is intent on distinguishing between (prior) causes from which we can deduce conclusions that not only establish the celestial facts but explain them *propter quid*, and effects of the heavens from which we can deduce *quia* the celestial facts alone.²⁸ Along the same lines, demonstrations through which we can deduce and explain *propter quid* that the deity exists should be distinguished from demonstrations *quia* that only establish the fact that God does exist. But if we only possess demonstrations *quia*, hence, unexplained conclusions, for the movements of the heavens themselves, and those motions are, in any case, effects from which we can only draw conclusions *quia* for the existence of their Mover, such *quia* deductions will not be proper demonstrations of the existence of a Mover for Maimonides, hence, not the stuff of knowledge truly apprehended by the intellect. It should, perhaps, be added in this connection that the term translated here as ‘proof’ is *dalil*, not the Arabic term *burhan*, the term Avicenna and (according to Pines) Maimonides usually reserves for true demonstrations, that is to say, demonstrations *propter quid*.²⁹

The reason why the motions of the heavens only furnish a proof *quia* of the existence of the deity is the same reason Maimonides constantly repeats why we lack a demonstration of the eternity of the world. We have no *explanation* for the apparent ‘irregularities’ that characterize the heavenly motions; hence, we cannot demonstrate *why* as well as *that* the heavens move as they do.³⁰ Hence, we cannot claim that those motions are necessary and, therefore, eternal—for the claim of causal necessity would presuppose a demonstration that furnishes an explanation and understanding of the fact. Similarly, we cannot demonstrate *propter quid*—in short, we cannot *demonstrate*—on the basis of those motions that the deity exists. This, I would suggest, is the deficiency to which Maimonides is referring when he says

28. See “Maimonides on the Growth of Knowledge and the Limitations of the Intellect.”

29. Cf. III:14:456–57. It should be admitted, as noted in n.19, that Maimonides’ use of *burhan* is not always, or consistently, restricted to demonstrations *propter quid*.

30. See “Maimonides on the Growth of Knowledge and the Limitations of the Intellect.” To avoid a possible misunderstanding (pointed out by an anonymous referee) of the quoted passage, Maimonides’ awkward formulation (which is preserved according to all the variant translations, cited in n.27) runs together (i) knowledge of the existence of the deity from acquaintance with a proof and (ii) knowledge that a proof is a proof of the existence of the deity. Maimonides allows for the possibility that we might someday have a demonstration *propter quid* of the celestial facts; even so, the knowledge we would thereby possess would not furnish us with a demonstration *propter quid* of the existence of the deity, or first mover.

that “the general conclusion” to be drawn from the heavens, namely, “knowledge of [the existence of their Mover], cannot be reached by human intellects.”³¹

Finally, the causal/explanatory condition on demonstrations can throw some light on yet another notorious feature of Maimonides’ argument for the existence of God. Maimonides famously insists that neither the doctrine of creation nor that of eternity can be demonstrated; for this reason, he attacks the Kalam proofs that make the existence of God rest on creation. Yet, whenever he proves the existence of God, both in the *Guide* and in the “Laws of the Basic Principles of the Torah” (*Hilkhot Yesodei HaTorah*) in the *Book of Knowledge* (*Sefer Madda’*) of his great code, the *Mishneh Torah*, Maimonides’ own proofs explicitly employ the premise of eternity—which, no less than creation, also cannot be demonstrated.³² Substituting eternity for creation, Maimonides’ own arguments ought to be vulnerable to the same objection he raises against the Kalam.

To wiggle his way out of this corner, Maimonides tells us that the ‘full’ structure of his argument is to demonstrate the existence of God without assuming *specifically* either creation or eternity. What he means by this is that he will prove the existence of God by the following dilemma. Either the world is created (generated) or it is eternal (ungenerated). If it is created, it follows trivially that it has a Creator; hence, the (or a) deity exists. If it is eternal, from the four demonstrations of II:1, it also follows that there must exist a deity. So, on either disjunct, God exists, and the two disjuncts are exhaustive. Therefore, God exists. Q.E.D.³³

31. Similarly according to Davidson’s translation of the passage; see “Maimonides on Metaphysical Knowledge,” pp. 102–3.

32. I shall argue below that the third proof is also made by Maimonides to depend on eternity.

33. Most commentators assume that the disjunctive premise (“The world cannot but be either eternal or created/generated.”) should be formalized as ‘*p* or not-*p*,’ i.e., as an instance of excluded middle. It is not obvious to me that this is how the premise ought to be understood. Even if the two alternatives are exhaustive contraries, the dilemma does not turn on the formal validity of an instance of excluded middle. Hence, it is probably more correct to state the premise as ‘*p* or *r*.’ On this last concern, see below. Furthermore, even if the argument is demonstrative, it would surely be “stronger” or “more compelling” if we could demonstrate the existence of God on grounds entirely *independent* of either creation or eternity. That is, this argument may not “rest” *specifically* on one to the exclusion of the other of its disjuncts. But it does “rest” on the disjunction. Suppose we could demonstrate the existence of the deity without resting it on the disjunction. For example, Avicenna’s own demonstration of the existence of the being necessarily existent in virtue of itself does not suppose either eternity or creation; hence, it is not invariant over but independent of the two disjuncts. Such a demonstration, even if no more deductively *valid* than the one given, would still be more *compelling*. If Maimonides really wanted a demonstration for the existence of God that did not “depend” in any way on an undemonstrated premise, he therefore would have had such a option available in Avicenna’s metaphysical proof. Why didn’t he employ (only) that argument?

Maimonides' strategy is either ingenious or disingenuous, and his readers have debated its validity from the start.³⁴ I shall not rehearse the many questions that have been raised; let me simply point out one consequence of the causal/explanatory condition on demonstrations for the argument form in question.

When Maimonides repeatedly claims that we cannot *demonstrate* either creation or eternity, he means that we cannot provide *explanations* for either, and we thereby lack a kind of knowledge or understanding of the respective claims. But both eternity and creation are themselves effects of the existence of God, not causes. Therefore, in arguing from them, even disjunctively, for the existence of God, we are giving at most another non-explanatory demonstration *quia*, from effects to cause. So we begin with two disjunctive premises, eternity (P) and creation (Q), neither of which Maimonides avows is demonstrated (*propter quid*)—which is to say that we cannot explain either conclusion. So, even if P and Q are exhaustive and exclusive alternatives—and, note, they are only material, not formal contradictories—their disjunction P or Q will still not be *demonstrated* (*propter quid*). After all, if neither P nor Q has an explanation, it is difficult to see how the disjunction P or Q could have an explanation. So the disjunctive premise whose two alternatives are effects is also undemonstrated (*propter quid*). But then the conclusion that God exists drawn from undemonstrated effects may follow formally from the disjunctive premise, but it also remains *unexplained* and, hence, *undemonstrated* (*propter quid*). Even Maimonides' disjunctive method cannot pull a demonstration out of a hat of less-than-demonstrative rabbits.

To conclude this section, let me summarize the central argument thusfar. Interpreters who take Maimonides to have believed that it is possible for humans to have knowledge of metaphysics typically argue as follows:³⁵ On the one hand, it is agreed by all parties that humans have no knowledge of the essence of the deity; hence, no special view about the limitations of human knowledge is necessary to substantiate that claim. On the other, since Maimonides explicitly demonstrates that the deity exists, he thereby demonstrates that he does have some knowledge of metaphysics. So if we carefully respect the essence/existence distinction, it is difficult to see what basis there can be for views denying all knowledge of metaphysics to Maimonides. In reply, I have argued that, granted the essence/existence

34. See Davidson, *Proofs* and "Maimonides on Metaphysical Knowledge"; Harvey, "Maimonides' First Commandment, Physics, and Doubt"; and Leo Strauss, "How to Begin to Study the Guide of the Perplexed," in the Pines trans. of the *Guide*, pp. xi–1vi, 1ii.

35. See, e.g., Alexander Altmann, "Maimonides on the Intellect and the Scope of Metaphysics," in his collection of essays *Von der mittelalterlichen zur modernen Aufklärung* (Tubingen, J.C.B. Mohr [Paul Siebeck], 1987), pp. 60–129, 116–17; Davidson, "Maimonides on Metaphysical Knowledge," p. 87; Ivry, "Logical and Scientific Premises," p. 85.

distinction, if one intends to demonstrate the existence of the deity in the full Aristotelian sense, one must be in a position to furnish a demonstration *propter quid*, hence, a (if not *the*) cause of His existence. Such a cause may or may not be (*per impossibile*, part of) the essence of the deity but, without knowledge of it, one cannot produce the kind of demonstration that constitutes understanding and, hence, knowledge of His existence. And without knowledge (at least) of the existence of the deity, there is no evidence that Maimonides thought that it is possible for humans to have true knowledge of metaphysics, the caliber of knowledge that would lead to or be identified with union with the Active Intellect. To be sure, Maimonides does demonstrate *quia* the existence of God, and *quia* proofs are demonstrations in the (weaker) sense that they give us reason, even good reason, to believe in their conclusion. What they do not give us is the kind of full understanding and knowledge of its content that a scientific demonstration *propter quid* gives. It is in the weaker sense, then, that Maimonides professes to have “demonstrated” the existence of the deity while, at the same time, he expects his informed reader to know what his demonstrations are not.

II

Thus far I have argued that one function of Maimonides’ demonstrations is to give reason to believe certain propositions even though they do not furnish the kind of understanding of those propositions that would constitute (scientific) knowledge of metaphysics. But they also do more than that, as I shall argue in section III. In order to see how they serve this additional purpose, it is necessary to take a closer look at their substantive arguments. I shall concentrate on Maimonides’ third demonstration. We can divide the proof into two parts: The first part (A) begins with an empirical datum and proceeds to prove that, among actual existents, some are subject to generation and corruption and some not, that is, some are necessarily existent and some not. The second part (B) argues that among these necessarily existent beings, one must be necessarily existent in virtue of itself (or its own essence) and, given the incorporeality and unity of such a being, it is the deity.

A.

1. There are many existents we perceive with the senses.

Remark: The argument begins with an empirical observation.

2. These existents are either (i) all subject to neither generation nor corruption or (ii) all subject to generation and corruption or (iii) some are subject to generation and corruption and some are not.

Remark: That is, they are either (i) all without beginning or end (i.e., all eternal), or (ii) all with both beginning and end (i.e., none eternal), or (iii) some have and some do not have a beginning and/or end (i.e., some are eternal, some not).

3. The first alternative (i) is absurd: our senses perceive at least some existents subject to both generation and corruption, coming into and going out of existence.
4. The second alternative (ii) is also absurd:
 - (a) If everything is subject to generation and corruption, then everything "has a possibility of undergoing corruption." But "what is possible with respect to a species must come about." Therefore, all existents will necessarily cease to exist at some time. But if everything were to cease to exist at some time, then nothing would exist to cause anything to exist (subsequently, e.g., now) or to (have) come into existence (subsequently, e.g., now). That is, nothing comes from nothing.
 - (b) But we do perceive things to exist; e.g., we ourselves exist.
 - (c) Hence, not everything can be subject to generation and corruption.
5. Therefore, while there do exist some things subject to generation and corruption (as the senses demonstrate), there must also exist something that is not subject to generation and corruption, something whose "existence is necessary, not possible."

Remark: By 'necessary,' Maimonides clearly means: eternal, i.e., subject to neither corruption nor generation.

B.

6. Anything whose existence is necessary (eternal) is necessary either "in respect to its own essence or in respect to the cause of this existence."
7. Anything that is necessary in respect to the cause of its existence is possible (of existence or nonexistence) in respect to its own essence. (Premise 19)
8. If a necessarily existent being is possible in respect to its own essence, then there must be some other existent which causes it to exist and this other existent must be necessary of existence. (Premise 19)
9. Among such causes that are each necessary of existence, "it has been demonstrated that" there must indubitably be an existent that is necessary of existence in respect to its own essence. For if there were no being necessary of existence in respect to its own essence, there would be neither noneternal beings nor, as Aristotle says, eternal beings—beings caused to exist by a cause that is necessary of existence.

Remark: Maimonides does not identify the demonstration in question but it "is a demonstration concerning which there can be no

doubt, no refutation, and no dispute, except on the part of one who is ignorant of the method of demonstration.”

10. Any being that is necessary of existence in respect to its own essence can have no cause (Premise 20) and therefore no internal multiplicity (“multiplicity of notions”) (Premise 21); if it did, the multiplicity would, *per impossibile*, be a cause of the existence of the being that is necessary of existence in respect to its own essence.
11. Therefore, a being that is necessary of existence in respect to its own essence cannot be corporeal, a body or force in a body. (Premise 22)
12. This being that is necessary of existence in respect to its own essence and that is uncaused, simple, and incorporeal is the deity.
13. There is at most one such being that is necessary of existence in respect to its own essence.

(a) If there were more than one such being, then the notion of the species of being necessary of existence in respect to its own essence would be a notion “superadded” to the essence of each such being.

(b) If (a), then neither of these beings would be necessary of existence in virtue only of itself but in virtue of the notion of the species it possesses.

(c) If (b), each such being necessary of existence in respect to its own essence would consist of a “duality” of notions (its own essence and the notion of the species). But this contradicts the “latter’s absolute simplicity and absolute perfection” and the fact that it can have no cause.

(d) It follows that “nothing at all can be associated with” the necessary of existence in virtue of its own essence.

Maimonides’ exposition is puzzling for a number of reasons. First, of its two parts, A is much better worked out than B. Indeed, step 9, which concludes that there exists the being that is necessary of existence in respect to its own essence, merely states that this “has been demonstrated” without even hinting how or where. This, however, is the crucial step in the proof.

Second, although it was assumed by Maimonides’ medieval commentators that his idea of the necessarily existent being in respect to its own essence is adapted from Avicenna, the argument of A is not Avicennian. On the A argument, necessary and possible existence are mutually exclusive. Possible existents are those that undergo generation and corruption; necessary existents are eternal. According to Avicenna, on the other hand, the notions of possible and necessary existence are not mutually exclusive. In all but one case, everything that actually exists is both possible and necessary: it is possible of existence in virtue of its own essence (there is no contradiction if we suppose the thing not to exist) and necessary of existence through a cause. The one exception is the deity, the being that is necessary of existence in respect to its own essence, who, Avicenna argues, must exist for the following reason: Suppose all actual beings are possible

in themselves and necessitated to exist through a cause, and let T be the totality of all such beings. T then is only possible of existence in itself and necessitated to exist through a cause C. But C cannot itself be possible of existence in itself and necessitated to exist through a cause; for if it were, by hypothesis it would be an element of T and no member of a totality can be a cause of the existence of the totality of which it is an element. Hence, C must be external to T. But if T contains all beings that are possible in themselves and necessitated through a cause, and C is external to T, then C cannot be possible in itself and necessitated through a cause. Hence, there must exist something necessarily existent in respect to its own essence.³⁶

Maimonides' A argument is not of this form. Indeed Herbert Davidson has argued that Maimonides instead held an alternative view, like that of Averroes, who criticized Avicenna. Furthermore, Davidson argues that both Maimonides and Averroes seriously misunderstood Avicenna.³⁷ According to Averroes, the possible is that which might not exist, i.e., that is subject to generation and corruption. The necessary is simply the eternal (including that which is caused). According to Averroes, not everything actual can be possible (generated and destructible) because, since everything possible requires a cause to bring it into actuality, a chain consisting exclusively of possible existents in which one actualized possible being causes another would lead to an infinite regress. Therefore, there must exist something necessary (eternal). By similar reasoning, not all eternal beings can be caused for that would also lead to an infinite regress. Therefore, there must exist a necessary, or eternal, being that exists in virtue of itself that is not caused. Thus Averroes' formulation of the argument is marked by two stages—from the possible (corruptible) to the necessary (eternal) through a cause and from the latter to the necessary in itself—and the crucial step in both stages of the argument turns on the impossibility of an infinite regress.

A similar interpretation, Davidson claims, should be given to Maimonides' argument. Like Averroes, Maimonides first shows (in A) that something must be eternal; he then (in B) demonstrates that there must be something eternal (necessary) in virtue of its own essence. At both stages, and especially at step 9, Davidson proposes Maimonides' argument is the impossibility of an infinite regress.

Davidson is right that Maimonides' argument is not a straightforward version of Avicenna's, but neither is it Averroes'. First, Maimonides' own explicit argument in A (step 4) is not an argument from the impossibility of an infinite regress; so there isn't the same motivation to think that the

36. This argument is given by Avicenna in his *Najat* and *Shifa*; the relevant sections are translated in Hourani, "Ibn Sina on Necessary and Possible Existence." On Avicenna's argument, see also L. E. Goodman, *Avicenna* (London: Routledge, 1992), pp. 49–122 and Gutas, *Avicenna and the Aristotelian Tradition*, pp. 261–65.

37. Davidson does not claim that Maimonides was actually familiar with Averroes' formulation; instead he suggests that they both had "incomplete information about Avicenna's proof" and "similar sources." See p. 383 n.24.

unstated argument ('as has been demonstrated') at step 9 is also an argument from the impossibility of an infinite regress.³⁸ I shall return in a moment to a second candidate for the argument at step 9.

Second, the A argument is itself rather obscure. Even if, *pace* step 4, everything is subject to corruption and everything ceases to exist at some time, *prima facie* it does not follow that there is a single time at which everything ceases to exist. And it is the latter possibility that is required for the proof. But there is also a reply to this objection. Assuming a version of the principle of plenitude, every possibility must be actualized at some time.³⁹ And among these possibilities, there will be, in addition to the possibility that each thing will cease to exist at some (but not necessarily the same) time, also the possibility that at some one time the totality of corruptible existents will cease to exist. The actualization of this possibility will clinch the proof.

However, this reply is also problematic. The principle of plenitude obtains only on the assumption that time is infinite, only if we assume the eternity of the world and spheres. In a finite span of time, not every possibility will necessarily be actualized. But then the argument that purports to show that there must exist some existent that is not subject to generation and corruption, that is eternal, assumes what it seeks to prove.⁴⁰

Furthermore, as some of Maimonides' greatest medieval critics and commentators—Hasdai Crescas, Joseph Kaspi, and Efodi (Profiat Duran) already noted—the argument must not only presuppose eternity but eternity *a parte ante*.⁴¹ Otherwise, one might object that the possibility that all

38. Maimonides does appeal to an argument from the impossibility of an infinite regress to show that proximate causes cannot "go on to infinity" (II:12:277). However, this is clearly limited to the "created" world, not to the necessary existent. He also appeals to the impossibility of an "infinite series" to support the existence of a "necessarily existent in which there is no possibility" in his critique of the Kalam in I:76:230.

39. Cf. Charles Manekin, "Problems of 'Plenitude' in Maimonides and Gersonides," in *A Straight Faith: Studies in Medieval Philosophy and Culture*, ed. R. Link-Salinger et al. (Washington, DC: Catholic University of America Press, 1988), pp. 183–94. According to Manekin, Maimonides holds that each possibility with respect to a species is realized at some moment of time, meaning that at all moments of time every possibility with respect to a species is instantiated in at least one member of the species. So, if corruption is a possibility with respect to every member of the species, there will be some time when every member will have ceased to exist. On the letter to ibn Tibbon on which Manekin bases this interpretation, see also Isaiah Sonne, "Maimonides' Letter to Samuel ibn Tibbon according to an Unknown Text in the Archives of the Jewish Community of Verona" (Heb.), *Tarbiz* 10 (1939): 135–54.

40. If the argument did indeed work, one might wonder why that would not be a *demonstration* of eternity?

41. See Hasdai Crescas, *Light of the Lord* I, I, 29; Joseph Kaspi, *Commentary on the Guide* II:1, and Efodi, *Commentary on the Guide* II:1 n.8; and for discussion, Harvey, *Physics and Metaphysics*, pp. 77–82.

existent entities will cease to exist might yet be realized in the future; hence, the fact that something now exists is no evidence against the lemma that everything is subject to generation and corruption. Only if an infinite amount of time has already passed, without everything having already been corrupted, can we say that there must be something incorruptible given that we now exist.

Unlike Avicenna's own proof, then, Maimonides' argument, or at least the A half, presupposes the controversial and undemonstrated Premise 26, the eternity of the world. On the other hand, it is not clear that the A argument is really necessary for the B argument—which would not be surprising if the B argument were Avicennean, since Avicenna's own argument does not rest on eternity. The disjunction in step 9 seems to say that it is not necessary for the B argument that there be something eternal through a cause; regardless of whether everything is originated and corrupted or whether it is eternal, there must be a necessary of existence in virtue of itself. In that case, the A argument can simply drop out. Why, then, the detour through eternity?

I will return to this question in section III, but there is also a third reason not to assimilate Maimonides' third proof to Averroes' model. Averroes' candidate for the being that is necessary in virtue of its own essence, his first uncaused cause, is a separate intellect. It may or may not be the intellect causally responsible for the outermost sphere, but it is an intellect. On the other hand, Maimonides' necessary existent in virtue of its essence, like Avicenna's, is more transcendent than any of the separate intellects whose existence is indicated by their causal roles in relation to the spheres. Indeed for both Maimonides and Avicenna, the necessary existent in virtue of its essence is not an intellect, period.

Maimonides discusses the necessary existent in virtue of its own essence only in nine other chapters of the *Guide* apart from II:1 (and in most of these cases only in passing): in I:52, I:57, I:58, I:60, I:61, I:63, I:74, I:76, and II:4. In two other chapters (I:69 and I:72), he describes the deity in terms reminiscent of the necessary existent, and he alludes to it in his exposition of *Ma'aseh Merkavah*, the "Account of the Chariot." Finally, his description of the deity in the opening chapter of the "Laws of the Basic Principles of the Torah" in the *Mishneh Torah* (1:1–3) appears to present Him as the necessarily existent being in virtue of its essence.⁴² Despite the relatively unsystematic explicit discussion in these passages, there emerges from them a sufficiently rich depiction of this being that is more like Avicenna's than Averroes'.

42. See, however, the fifth ruling (*halakhah*) in the same chapter (*Mishneh Torah*, "Laws of the Basic Principles of the Torah" 1:5) where Maimonides also describes this being as the mover of the sphere, apparently identifying the first mover with the necessary existent, as his explicit presentation in *Guide* II:1 would also suggest. I return to this issue below.

For our purposes, the most salient characteristic of the necessary existent in respect to itself is its absolute simplicity, unity, or oneness, the fact that in its being there is only “one notion in which there is no idea of multiplicity.” Not only does the necessarily existent in respect to itself not participate in composition of form and matter; it also does not participate in the multiplicity of essence and existence or in the ‘syntactic compositionality’ induced by subject-predicate (or substance- or substratum-attribute) syntax or in any other kind of internal divisibility of notions.⁴³ Moreover, Maimonides quickly realizes the difficulties that attend any attempt to use any language, including philosophically regimented idioms, to describe the necessary existent in respect to itself—including its very existence and oneness: All such attempts run afoul of its unity and absolute oneness. His main attempt is through formulae that retract with one hand what they ascribe with the other:

Consequently He exists, but not through an existence other than His essence; and similarly He lives, but not through life; He is powerful, but not through power; he knows, but not through knowledge. For all these attributes refer back to one notion in which there is no idea of multiplicity, as will be made clear. (I:57:132)

At the same time, he realizes the futility of these linguistic attempts to represent the necessary existent, for

these subtle notions that very clearly elude the minds cannot be considered through the instrumentality of the customary words. . . . For the bounds of expression in all languages are very narrow indeed, so that we cannot represent this notion to ourselves except through a certain looseness of expression. . . . We give the gist of the notion and give the mind the correct direction toward the true reality of the matter when we say, one but not through oneness, just as we say eternal in order to indicate that he has not come into being in time. (I:57:132–33)

Maimonides’ point here is semantic and epistemological as well as metaphysical. As in Avicenna, the necessary existent in virtue of its essence is metaphysically distinct from everything else. Unlike Averroes’ necessary existent in virtue of its essence which is necessary in the same sense of ‘necessary,’ that is, eternal, as the necessary existents in virtue of a cause, Avicenna’s necessary existent in virtue of its essence is not eternal—if ‘eternal’ means what it does for other things that are eternal but caused. The predicates ‘eternal’ and, hence, ‘necessary’ have entirely different meanings when applied to the necessary existent in virtue of its essence and when applied to everything else. Likeness, the predicate ‘exist’ has a com-

43. On these kinds of multiplicity, see my “Logical Syntax.”

pletely different meaning in representations of the deity from what it has in representations of other beings: It does not denote an attribute or accident. For the same reason, the compound 'necessary existent' is entirely equivocal when representing the deity; again, it is not an attribute. Here Maimonides goes beyond Avicenna in making the metaphysical distinction between the necessary existent in virtue of itself and those things whose existence is necessitated by a cause into a semantic distinction as well. But this semantic difference, which is in part a reflection of "the summary fashion of which words are indicative" (I:57:133), is not merely a deficiency of words, or external speech; it reflects the limitations of human apprehension. The absolute simplicity and oneness of the necessary existent in virtue of its own essence make it impossible for humans to understand anything of its essence and even of its existence. Thus "we are only able to apprehend the fact that He is ('*anniyya*) and cannot apprehend His quiddity (*mahiyya*)" (I:58:135). As I have argued elsewhere, Maimonides' use of '*anniyya*' here may be an attempt to avoid the predicate for 'existence' (*wujud*) applied to God. Because of its absolute equivocation in its application to God (and its syntactic role as a predicate designating an attribute), he may wish to let us know that we cannot apprehend that God *exists*, only *the fact that He is*.⁴⁴ It is with these epistemological and semantic considerations in mind that Maimonides concludes:

What then should be the state of our intellects when they aspire to apprehend Him who is without matter and is simple to the utmost degree of simplicity, Him whose existence is necessary, Him who has no cause and to whom no notion attaches that is superadded to His essence, which is perfect—the meaning of its perfection being that all deficiencies are negated with respect to it—we who only apprehend the fact that He is ('*anniyya*)?

The necessary existent in virtue of itself is not only metaphysically distinct from all other beings; all our representations of this being are also semantically distinct, purely equivocal, syntactically noncomposite, and unknowable or mysterious.⁴⁵

44. See my "Logical Syntax" and W. Z. Harvey and S. Harvey, "A Note on the Arabic Term '*Anniyya*/'*Aniyya*/'*Inniyya*" (in Heb.), *Iyyun* (1989): 167–71.

45. See also Maimonides' claims that the Tetragrammaton "gives a clear unequivocal indication of His essence, . . . perhaps . . . the notion of a necessary existence" (I:61:147–48) and that the divine phrasal name 'I am that I am,' whose "whole secret consists in the repetition in a predicative position of the very word indicative of existence" (I:63:154), "makes it clear that He is existent not through existence . . . the existent that is the existent, or the necessarily existent. This is what demonstration necessarily leads to: namely to the view that there is a necessarily existent thing that has never been, or ever will be, nonexistent" (I:63:155). Throughout these passages Maimonides' emphasis on underived and syntactically simple names extends the Avicennian metaphysics to the semantics (or logical

Given this characterization of the necessarily existent being in itself, we are also now in a position to appreciate the full force of the claim that we cannot demonstrate the existence of the deity *propter quid*. Indeed one may wonder how it is possible to construct even a valid proof *quia* for the existence of the deity; for if we begin with actual existents, any such proof will inevitably falter on a fallacy of equivocation at some step in the argument.⁴⁶ Our epistemic situation might be described as follows: As good Aristotelians we cannot but seek causes for effects and thereby come to acknowledge an ultimate cause, a deity; but when we pause to reflect on what our reasoning (*quia*) has led us to, we must also admit we do not understand the deity we have proven to exist. That is, given the tight connection between (Aristotelian causal) explanation and understanding, if we cannot demonstrate the existence of the deity from its causes (*propter quid*), there is a real sense in which we cannot understand (even) *what* we have demonstrated (*quia*) to exist. So, the demonstration *quia* compels us to believe, on the basis of known effects, that there exists some cause that is necessary in respect to itself, but we lack all understanding (by way of, *per impossibile*, its causes) of what that cause is. The force of the *quia* demonstration derives from the causal reasoning we *do* understand (up to, say, step 9) but, without detracting from that force, our complete lack of understanding of the conclusion is the full import of our inability to produce a demonstration *propter quid*.⁴⁷ This is, perhaps, one perplexity to which the *Guide* guides us.

With this consequence in hand, I now want to turn to the argument for the existence of the necessary existent in itself to which Maimonides alludes at step 9 of the B argument. Here again we shall meet the same perplexity. Recall that I suggested earlier, contra Davidson, that there is no evidence

syntax) of representation. Note also that Maimonides explicitly states in the last quotation that there is a *demonstration* (*burhan*) of the existence of the necessarily existent (in virtue of its own essence). It is curious, however, that in the very next sentence, in describing God's exchange with Moses in Ex. 3, he first says that God "made known to [Moses] the *proofs* (*al-dalil*) that would establish His existence among their men of knowledge," and then that Moses replied that "they have accepted by means of these intellectual *demonstrations* the view that there is an existent deity" (I:63:155). Here there seems to be a miscommunication between God and Moses: what God presents as simply *proofs*, Moses takes to be *demonstrations*. Could this be a hint concerning Maimonides' own promised demonstrations of the necessarily existent?

46. I am indebted here to Kenneth Seeskin for pressing me on this point.

47. The strength of the fallacy of equivocation, and hence the degree to which we lack a demonstration (*propter quid*), will directly vary with the degree to which one pushes Maimonides' equivocation thesis: the more radical the equivocation, the greater the fallacy, and the less valid the demonstration (*propter quid*). For what appears to be the weaker reading, see Harvey, "Maimonides' First Commandment," p. 161: "The Avicennian proof, even if perfectly valid, is thus *not thoroughly comprehensible* and presumably never will be" (my italics). On my analysis in the text, the Avicennian proof or, more precisely, its conclusion is *thoroughly incomprehensible*.

that the issue is the impossibility of an infinite regress. What, then, is the argument?

As we have seen, in II:1, Maimonides argues for the existence of a single (unmoved) mover of the sphere, or fifth body. But three chapters later, in II:4, he describes how, given present scientific knowledge of the heavens, it must be assumed that there are multiple spheres, each of which is moved by its own respective mover, a separate intellect. Now, none of these separate intellects can strictly speaking be individuated (because of their immateriality) but each is nonetheless distinguished from the others by its respective emanational, or causal, relations, both to its respective sphere and to other intellects.⁴⁸ Furthermore, while the separate intellects are identified with the biblical angels (*mal'akhim*) who, in turn, are equivocally designated by the same term '*Elohim*' that designates the deity (I:2), Maimonides repeatedly distinguishes *the* deity from *any* of the separate intellects, including the first intellect that moves the outermost sphere whom the deity "brought into existence" (II:4:258). This already is significant, because Maimonides' first proof for the existence of the deity appeared to identify the deity with a mover of a sphere. However, this is not all. Having laid out the hierarchy of separate intellects, Maimonides next states:

It cannot be true that the intellect that moves the highest sphere should be identical with the necessary of existence. For it has in common with the other intellects one separately conceivable thing, namely, that represented by the act of causing bodies to move. Now every intellect is distinguished from any other intellect with respect to one separately conceivable thing. In consequence each one of the ten intellects is endowed with two separately conceivable things. Accordingly there can be no doubt that all of them have one first cause. (II:4:259)⁴⁹

48. Cf. *Mishneh Torah*, "Laws of the Foundation of the Torah," 2:5-6. On Maimonides' statement in this context, that Aristotle's "opinions" about "the causes of the motions of the spheres" "from which he deduced the existence of separate intellects" are "assertions for which no demonstration has been made" (II:3:254), see Davidson, "Maimonides on Metaphysical Knowledge," pp. 73-78. Although I cannot address his objections in detail, the reservations he raises about Pines's translation and the substantive claims he goes on to make do not seem to me to affect Pines's basic claim. Contrary to what Davidson says, Maimonides also says that the "existence of the Active Intellect" is (only) "indicated" and not demonstrated by the procession of intellects from potentiality to actuality. The causes, or principles, of the motions of the spheres to which he refers may also be the cosmological principles he attacks in II:24. Since, as I have indicated, the force of the first proof in II:1 may also be mitigated by the complications introduced in II:3-4, it is also difficult to appeal to that argument to unequivocally support a "demonstration" of "at least one incorporeal mover of the spheres" ("Maimonides on Metaphysical Knowledge," 77).

49. It should be noted that Pines's modifier "separately conceivable" does not occur in the Arabic (the one [all-purpose] term *ma'ani*).

Maimonides' argument here is two-fold. First, the intellect that moves the highest sphere cannot be identical with the necessary existent in virtue of itself because the former is "endowed with two things": one notion that it has in common with other intellects and a second that distinguishes it from them. Hence, although an intellect is not a *composite* of form and matter—each is instead a species onto itself—and, strictly speaking, not subject to individuation, it is a "multiplicity" endowed with element-like notions that in turn require a cause to explain its unity: the fact that it is *one* intellect (II:1:251).⁵⁰ On the other hand, the necessary existent in virtue of its essence has no cause; hence, it cannot be identical with any intellect, even the first. Here the argument, it should be noted, turns on the fact that the necessary existent is not itself caused, but what is to be explained is the unity, or oneness, of the intellects despite their multiplicity.

Maimonides' second point is that "there can be no doubt that all of [the separate intellects] have one first cause." Maimonides' claim is not only that each separate intellect must have a cause but that there must be one cause for all the intellects. The argument for this thesis is not the impossibility of an infinite regress; the reasoning is Avicennian or, if you will, Neoplatonic. Each separate intellect is one intellect despite the fact that it is "endowed" with two notions. Therefore each requires a cause to explain its unity. That cause cannot itself be an intellect for the obvious reason that any one intellect, being endowed with multiple notions to distinguish it from other intellects, would require the same explanation for its unity.⁵¹

This, I want to propose, is Maimonides' argument in step 9 of the B argument for the existence of the necessary existent in virtue of itself, given the existence of necessary existents through a cause such as the separate intellects. The argument is spelled out more explicitly in the last part of II:1:250–51 where Maimonides explicitly uses it to prove the unity of the deity. Alluding to I:72 and I:69 where, he says, "it has already been established as true by means of a demonstration that all that exists is like one individual whose parts are bound up with each other" (II:1:250), he first argues that there must be a cause of the unity of this one individual that

50. On the idea that each separate intellect (as well as star and sphere) belongs to its own unique species, see Shlomo Pines, "Scholasticism after Thomas Aquinas and the Teachings of Hasdai Crescas and his Predecessors," repr. in *The Collected Works of Shlomo Pines*, Vol. V (Jerusalem: Magnes Press, 1997), pp. 489–589, 541–52 n. 4–5. I am indebted to Charles Manekin for bringing this reference to my attention.

51. For a strikingly similar argument, see *Al-Kindi's Metaphysics*, trans. A. L. Ivry (Albany, NY: SUNY Press, 1974), pp. 84, 113, and Michael E. Marmura and John M. Rist, "Al-Kindi's Discussion of Divine Existence and Oneness," *Medieval Studies* 25 (1963): 338–54, esp. 342–43, 351–54. In their words, "What al-Kindi, in effect, has attempted to point out is that the plurality which we encounter in the world cannot be explained unless there is a cause which is essentially one" (354). I am indebted to Diana Lobel for bringing this parallel argument to my attention.

constitutes "all that exists"; and that this cause is the deity.⁵² Maimonides next excludes the possibility that there could be numerically more than one such deity, or more than one divine cause of the unity of all that exists, each of which would be necessarily existent in itself. He reasons that any multiplicity of deities, or beings necessary in themselves, would presuppose yet another cause to explain their respective unities, which in turn would contradict the "demonstrated . . . condition that what is necessary of existence can have no cause" (251). For the same reason, Maimonides excludes the possibility that the deity, or divine cause of unity, could be a complex containing internal parts. He concludes:

Thus there can be no doubt about ultimately reaching One who is the cause of the existence of this existent, which is one, whatever the manner of this may have been: whether through creating it in time after it had been nonexistent, or because it proceeds necessarily from this One [i.e., as in step 9, whether the universe is eternal or originated]. It has thus become clear . . . that the fact that all that exists is one, indicates to us that He who caused it to exist is one. (II:1:251)

This argument is also *quia*, from effects to cause; hence, it is also not a full-fledged demonstration (*propter quid*).⁵³ However, the real force of the argument turns on the characterization of Avicenna's necessarily existent being in virtue of itself as (an uncaused being that is) absolutely one, internally simple, an indivisible unity. As in II:4, this condition excludes the possibility that the necessary of existence in itself could be an intellect of any kind—for if it were, it would contain per force two notions whose coming-together would require a cause. This is the real force of Maimonides' denial in II:4 that the first intellect and necessary of existence are the same. As in Plotinus, the One is not itself nous or intellect.⁵⁴ And, as we

52. Maimonides' use of 'demonstration' in this statement, as a glance at I:69 and I:72 shows, cannot be *propter quid*; indeed in neither chapter is there an 'argument' with the explicit form of a demonstration.

53. For further doubts about the argument, see II:22:317ff.

54. Cf. Marmura and Rist, "Al-Kindi's Discussion," 345–46. For reasons of space, I cannot discuss at length *Guide* I:68, where Maimonides famously discusses how the deity conceived as an intellect, is simultaneously (and always) intellect, intellectually cognizing subject, and intellectually cognized object. For many readers, this chapter is evidence that Maimonides holds that God is an intellect. (See Pines's own conflicting statements on this issue in his "Translator's Introduction" and in "Limitations.") My own view is that this chapter must be read in conjunction with I:69–72, in which Maimonides attempts to explain how "these three notions form in Him . . . one single notion in which there is no multiplicity" (I:68:163) notwithstanding the apparent multiplicity induced in the deity in virtue of the knowledge-relation in which He as subject stands to objects of knowledge. That is, this chapter is concerned with apparent divine internal multiplicity induced by relations, similar to the syntactic problem of divine attributes discussed in I:50–63. Maimonides' reply is that, even if the deity is an intellect 'related' to objects of

argued earlier, insofar as the One as a source of unity lies beyond intellect and beyond everything we understand about unity, it also lies beyond our understanding.

Now, I said earlier that the second member of each of the two pairs of proofs in II:1 picks up the slack left by the other member. If only with a glance, we are now in a position to see what the fourth metaphysical proof, from potentiality and actuality, might add to the third proof from possibility and necessity. The latter proves the existence of the necessarily existent being in itself insofar as it is the cause of the *unity* of all that exists. The fourth argument shows how the necessarily existent in itself is the cause of the *actuality*, or *being*, of all that exists. Maimonides spells the same argument out in slightly different terms in I:69 where he explains how God is the formal cause, or form, “for all that exists.”

[J]ust as every existent thing endowed with a form is what it is in virtue of its form—in fact its being passes away and is abolished when its form passes away—there subsists the very same relation between the deity and the totality of the remote principles of existence. For the universe exists in virtue of the existence of the Creator, and the latter continually endows it with permanence in virtue of the thing that is spoken of as overflow. . . . Accordingly if the nonexistence of the creator were supposed, all that exists would likewise be nonexistent; and the essence of its remote causes, of its ultimate effects, and of that which is between these, would be abolished. God has therefore, with reference to the world, the status of a form with regard to a thing possessing a form, in virtue of which it is that which it is: a thing the true reality and essence of which are established by that form. Such is the relation of the deity to the world. In this respect it is said of Him that he is the ultimate form and the form of forms; that is, He is that upon which the existence and stability of every form in the world ultimately reposes and by which they are constituted, just as the things endowed with forms are constituted by their forms. (I:69:169)

Here God is not a form for a body in the way that material forms are forms for their respective matter. Instead, God is the form of the world in that, like more efficient-like Neoplatonic forms that really *make* that of which they are forms *be* those kinds of things, so God, or His being, *makes* the universe *be*: he causes all that exists to exist.⁵⁵ As Maimonides own language in this passage testifies, he recognizes that this use of ‘form’ is itself a stretch

knowledge, it is not necessary to claim that He is internally multiple because, according to the philosophers, even the human intellect is a unity when engaged in actual intellection. Maimonides is not, however, committing himself in I:68 to the claim that the deity is an intellect; he is merely arguing that if He were, that would entail no multiplicity. I intend to elaborate on this chapter elsewhere.

55. For this description of Neoplatonic forms, I am indebted to Ian Mueller (personal communication).

of the term—as is his use of ‘actuality’ in the fourth speculation of II:1. But as we saw earlier, such ‘loose’ use (even) of philosophical language when we attempt to represent the necessarily existent being in respect of itself is unavoidable. In any case, together the third and fourth proofs prove, if only *quia*, the existence of a necessarily existent being in itself that is the cause of both the being and unity of all beings.

III

In this concluding section, I return to the question raised at the start of this paper: What was Maimonides’ purpose in presenting his four speculations concerning the existence of the deity in chapter II:1? If the four arguments are not full demonstrations *propter quid* that furnish the content of proper knowledge, the caliber of apprehension that would enable a human knower to achieve union or conjunction with the Active Intellect, what is their function? If the A half of the third proof is as problematic and circumlocutionary as we have suggested, why does Maimonides detour through it? Why the unnecessary introduction of Premise 26 involving the eternity of the world if it is not really required for the proof? And if, as we have suggested, Maimonides is aware of these problems with his proofs—hence, aware that they do not yield sound explanatory demonstrations of their conclusions—what *is* he doing in this chapter?

I suggested in section I that demonstrations *quia* may give grounds for belief in their conclusions even though they do not yield scientific knowledge that presupposes understanding. Despite the specific problems we have now uncovered with the third proof, this may still be true: its doxastic force is, I think, largely undiminished. Indeed, we might even buttress the force of the proof if we can explain its oddities in light of other aims. I now wish to propose that the doctrines purported to be demonstrated are not, in fact, the primary value Maimonides sees in his demonstrations. Rather their primary function in the *Guide* consists in the “spiritual exercises” in which they engage the inquirer. What I mean by this last phrase, which I take from the French historian of Hellenistic philosophy Pierre Hadot, is based on the idea that philosophy is not, or not primarily, the exposition of an abstract theory or doctrine (or, for that

56. Pierre Hadot, *Philosophy as a Way of Life*, ed. A. I. Davidson, trans. M. Chase (Oxford, 1995), pp. 79–144. It is a further question how, in his historical intellectual context, Maimonides could have developed this Hellenistic, non-Aristotelian conception of philosophy as a “way of life.” For initial exploration of possible avenues by which Maimonides might have been led to this view, see the series of recent papers by Thérèse-Anne Druart, who has tried to argue that such a conception of philosophy underlies the ethical thought of Al-Kindi and (Abu Bakr) al-Razi: “Al-Kindi’s Ethics,” *Review of Metaphysics* 47 (1993): 329–57; “Al-Razi (Rhazes) and

matter, the exegesis of a text).⁵⁶ Rather, philosophy is an activity that constitutes a way of life, albeit one that employs intellectual techniques such as dialectic and demonstration. To engage in philosophy is to pursue a set of intellectual practices directed to the achievement of happiness or perfection, states it seeks to attain by cultivating specific attitudes and dispositions; by training its practitioners to improve or hone certain of their skills, capacities, or competences; and by therapeutically treating or curing the main sources of their unhappiness: their passions and material impulses more generally. The 'spiritual' in this sense includes the cognitive; many philosophical exercises focus on specifically intellectual dispositions and states they seek to perfect through intellectual activities—such as research, investigation, techniques of concentration and attention, self-investigation, and the contemplation of nature through the study of physics. However, the point of the exercises is not, or not primarily, doctrinal; it is primarily practical—although the practical here involves intellectual exercises concerned with theoretical subjectmatter. As Hadot and others have argued, such a practice-oriented conception of philosophy was held by all the various Hellenistic schools—each with its own set of exercises aimed at cultivating its respective set of spiritual attitudes. Maimonides, I wish to argue, holds a similar view (although, eclectic that he was, it was also probably not his only view of philosophy).

Maimonides describes exercises of this kind in chapter III:51 where he reconceives the Mosaic practical commandments as training designed for the perfected individual to enable him to engage his whole self in divine

Normative Ethics," in *Tradition and Renewal*, ed. D. A. Boileau and J. A. Dick (Leuven, 1993), pp. 167–81; "Al-Razi's Conception of the Soul: Psychological Background to his Ethics," *Medieval Philosophy and Theology* 5 (1996): 245–63; "The Ethics of al-Razi (865–925?), *Medieval Philosophy and Theology* 6 (1997): 47–71; and "Philosophical Consolation in Christianity and Islam: Boethius and al-Kindi," *Topoi* 19 (2000): 1–10.

Such a view of philosophy may also have arisen under the influence of pietist (Sufi) views with which Maimonides would have been familiar both through the writings of Bahya ibn Paquda and from personal acquaintance with Egyptian Jewish circles of this leaning; see Paul Fenton, Introduction to his trans. with notes of 'Obadyah b. Abraham b. Moses Maimonides, *The Treatise of the Pool* (London: Octagon Press, 1981).

Within the Arabic Aristotelian tradition, there may have been views of philosophy of this more practical type; see T.-A. Druart, "Al-Farabi, Ethics, and First Intelligibles," *Documenti E Studi Sulla Tradizione Filosofica Medievale* 8 (1997): 403–23. Finally, for two further recent studies of the *Guide* that emphasize the role of practices in its philosophical project (albeit from perspectives different from that developed in this paper), see Daniel H. Frank, "Reason in Action: The 'Practicality' of Maimonides' *Guide*," in *Commandment and Community: New Essays in Jewish Legal and Political Philosophy*, ed. Daniel H. Frank (Albany, NY: SUNY Press, 1994), pp. 69–84 and Frank, "New Introduction," in Maimonides, *The Guide of the Perplexed*, ed. Julius Guttman, trans. Chaim Rabin (Indianapolis: Hackett Pub., 1966), pp. viii–xvi; and Menachem Kellner, *Maimonides on Human Perfection* (Atlanta: Scholars Press, 1990).

worship. Earlier in the *Guide*, chapters III:26–49, he had explained the commandments as means to communal social, political, and intellectual welfare, but now their point (for the perfected individual, not for the community-at-large) is to bring one to occupy oneself solely with God—which one does by not occupying oneself with anything other than Him. Through all-absorbing performance of actions that serve no independent or external end, the individual “trains [himself] to occupy [himself] with God’s commandments rather than with matters pertaining to this world” (III:51:622).⁵⁷ Maimonides also presents a number of exercises that are specifically intellectual elsewhere in the *Guide*.⁵⁸ The study of physics and cosmology is presented as a spiritual exercise that leads one, through its problem-raising mode of inquiry, to recognition of the limitations of one’s intellect and thereby to curing, or disabusing, oneself of “epistemic desires” one cannot satisfy—desires to know things that lie beyond the limits of human knowledge. Other kinds of metaphysical inquiry lead to antinomies that induce a sense of awe in the face of the impossibility of knowledge of God.⁵⁹ And I want to suggest that the demonstrations of the existence of the deity in this chapter also function as exercises, but with yet another aim or set of aims.

Maimonides’ four demonstrations ascend through a hierarchy of existence. They begin with and from the sublunar, transient, physical world of becoming, rise to the eternal, unchanging spheres, then to the incomposite but not yet absolutely simple separate intellects as movers, and finally to the one necessary existent in virtue of its own essence—all in pursuit of the deity. Likewise, there is a clear progression in the series of four demonstrations. The first demonstrates the existence of a first, numerically single cause of motion. The second demonstrates that this first mover consists in one notion, even though this unity *prima facie* falls under the category of quantity. The third proof shows that the necessary existent in itself exists as the cause of the unity of all that exists, where its own unity, or oneness, is beyond all categories. And the fourth proof demonstrates that the necessary existent in itself is the cause of all actuality, the being of all that exists. Just as the second member of each pair complements the first member, so

57. See my *Problems and Parables of Law* (Albany, NY: Suny Press, 1998), pp. 45–48, 68–76.

58. As Diana Lobel, “‘Silence is Praise to You’: Maimonides on Negative Theology and Religious Experience,” *ms.*, points out, Maimonides also criticizes nonphilosophical meditative exercises that do not involve intellectual grasp of their content. Thus, in III:51, he attacks “someone who thinks of God and frequently mentions him [*yakthuru dhikrahu*],” using the Sufi term ‘*dhikr*’ that refers to practices of repetition or remembrance (without understanding) of the name of God that are meant to induce states of ecstasy in God.

59. For examples of these two kinds of intellectually oriented exercises, see, respectively, “Maimonides on the Growth of Knowledge” and “Maimonides in the Skeptical Tradition.”

the second pair of metaphysical proofs complements, and moves beyond, the first pair of physical proofs.⁶⁰

Maimonides' focus in these demonstrations is on the route they follow rather than on the destination at which they aim. By engaging in the kind of intellectual reflection and contemplation required by the demonstrations of the existence of the deity, one worships the deity. As for Plotinus, Maimonides' inquiry into divine subjectmatter is not only discourse about the deity but a kind of intellectual experience directed toward the deity. Unlike Plotinus, however, Maimonides allows for no ascent beyond the limitations of the intellect or beyond being, no mystical union or presence with the deity. Instead the divinely oriented experience arises precisely out of recognition of, and respect for, the boundaries of the human intellect, by grappling with the puzzles, antinomies, and obstacles the intellect encounters in *making the attempt* to think about the deity. One makes this attempt by climbing the ladder of causes, from the intermediate natural causes of the sublunar world, up to the separate intellects and, finally, up to the necessary existent, the cause of the intellects' unity. So, it is crucial for Maimonides that we not confuse the necessary existent in respect to itself with the first intellect that moves the highest sphere; but that is not to say that we can throw away the ladder having climbed as high as we can. For it is only by way of contemplating the intellects, and in grappling with the problems and puzzles that inevitably arise in the course of demonstrative reasoning about these incomposite beings that are yet multiplicities, that we can approach the subtle understanding of the One that is necessary to be "guided" to the deity.

Given Maimonides' strong position on the unknowability of the deity, a view he expresses through his radical equivocation thesis for all divine predications, I mentioned earlier that one wonders how he could really have held we could demonstrate the existence of the deity (even *quia*) without running afoul of equivocation. Again, the moral I would draw is that the function of the proofs is not the thesis they demonstrate but the discipline they inculcate—by making us recognize the obstacles metaphysical inquiry encounters. This brings us to a second function of the demonstrations. The kind of intellectual, or spiritual, experience through which

60. For further examples in the *Guide* and *Mishneh Torah* of the pedagogical (if not epistemic and metaphysical) priority of the physical proof to the metaphysical proof, see Harvey, "Maimonides' First Commandment," pp. 160ff. In the text, it should be added, I have emphasized the complementarity of the physical and metaphysical proofs. A further question is whether (and if so, how) Maimonides, at perhaps a later stage of his inquiry, exploits the deep tension, or incompatibility, between the two. At the end of I:72:193, he refers to two demonstrations that *prima facie* constitute an antinomy that, in turn, leads him to an expression of awe and dazzlement before the deity. The two demonstrations to which he refers may be the physical and metaphysical proofs, already sketched (albeit in somewhat parabolic form) in I:69 and I:72. For preliminary discussion of this passage, see "Maimonides in the Skeptical Tradition."

Maimonides guides his reader is not just any such experience; it is meant to be *constrained* by the specific character of the arguments and methods of argumentation he employs.

Maimonides sets up his philosophical demonstrations, in the opening chapters of Part II of the *Guide* in deliberate contrast to the proofs of the Kalam which he lays out in the closing chapters of Part I. His opposition to the Kalam turns both on their substantive views and, more importantly, on their methods and style of argumentation; his demonstrations are designed to condition or train the inquirer to think in certain ways about the deity that are explicitly opposed to the irresponsible and harmful ways of thinking about the deity inculcated by the Kalam. At I:71, the preface to his discussion of the existence of the deity, Maimonides singles out two main differences between his and the Mutakallimun's respective modes of argument and ways of thinking. First, he emphasizes that his "opinions conform to that which exists" rather than, like the Kalam, make that which exists conform to his opinions. For example, he charges that the Mutakallimun "abolish the nature of all existence" and "violate that which is perceived by the senses" (I:71:182) simply in order to defend or safeguard the correctness of their opinions. They willingly deny even the evident, and simply remake reality, to maintain their theological position, reshaping the world to fit their religious agenda. Maimonides, on the other hand, begins from what evidently exists, namely, from the premise that "there exists nothing except God . . . and this existent world and that there is no possible inference proving His existence . . . except those deriving from this existent taken as a whole and from its details." Even for theological purposes, there is no option but to "consider this existent *as it is* and to derive premises from what is *perceived* of its nature" (I:71:183, my emphasis). It is for this reason that Maimonides' demonstrations, unlike those of the Kalam, always begin from the sensible, physical world and work through the various intermediate causal principles of nature until we reach the ultimate source. Because there is no alternate route to knowledge of the deity, Maimonides' point is not only to teach us to know God through the sub-lunar world, or nature, but to train us to conform our metaphysical opinions to what we know, beginning with the sensible world of nature. For that is, according to our best available knowledge, what does exist. This may also be Maimonides' reason for introducing the doctrine of eternity even when it is not really necessary for his argument: because it is the most reasonable scientific assumption given the way the world looks to us. The demonstrations not only aim at knowledge; they aim to cultivate respect for the best knowledge of what exists, whatever it turns out to be. They lead us to discipline our thinking about theology, to bring it down to earth by constraining all speculation to begin on earth, from the facts of sublunar nature as we perceive it.

Maimonides' second criticism of the Mutakallimun is that "they follow the imagination and call it intellect" (I:71:179). His objection is not simply

that the Kalam employs the imagination (for that may be inevitable, as he indicates elsewhere, e.g., in III:15), but that they confuse it with the intellect. In other words, what is wrong with the Kalam arguments based on temporal creation is not they are merely dialectical proofs rather than demonstrative arguments like those of the philosophers. What is wrong is that the Kalam does not know that its dialectical arguments are just dialectical and not demonstrative; it mistakenly believes that it has *demonstrated* the existence of God. By the same token, Maimonides' superiority need not lie in the success of his demonstrations, in the fact that he has soundly demonstrated the existence of God. Rather, it may lie in the fact that, knowing the difference between dialectic and demonstration, he knows that he has *not* given demonstrative (*propter quid*) arguments for the deity (or that what he has given are merely demonstrations *quia*). The job of the demonstrations is, accordingly, to train the inquirer to distinguish the intellect from the imagination (even if one cannot successfully produce an intellectually sound demonstration), and not to mistake what is truly possible and necessary with what one merely imagines to be admissible, or with the familiar, or with what habit would have us believe.

There is another implication of this criticism. Throughout the *Guide*, Maimonides identifies the imagination with the vulgar, the way of thinking of the multitude. By training the inquirer to distinguish the imagination from the intellect, the demonstrations also serve to teach him that nature is not itself vulgar, that what is truly natural is not what the vulgar, or the multitude, imagine to be natural. This leads to a specific recommendation. In order to conform one's opinions to what exists, to nature, one must know what nature is, and for Maimonides that knowledge is to be found exclusively in the study of science. Therefore, one must undertake to study science or the natural world. How? Maimonides repeatedly tells the reader that the knowledge that "establishes the correctness of the philosophical premises that [he] formulates [including the twenty-six premises at the beginning of Part II]" is not to be found in the *Guide* itself. "For doing this constitutes the greater part of the natural and the divine science" (I:71:182–83). Some of the premises are self-evident, but many of them

refer you to the passages in which their demonstration occurs in the books concerning natural science or metaphysics. Accordingly, you should have the intention of looking up the relevant passage and thus establishing the correctness of what may be required to have its correctness established.

The demonstrations of II:1, in other words, are intended to be read as summary, abridged versions of extended courses of study in natural science and metaphysics. 'Don't simply take it for granted that my premises are true,' Maimonides is telling his readers; 'investigate them yourselves and learn the real science.' Thus, the demonstrations of the *Guide* call on the

reader to engage in independent study of physics and natural science in order to be able to complete their own demonstration. The same demonstrations that instruct one to conform his opinions to what exists, and thereby to value the truth, also direct one to discover the truth oneself rather than complacently accept what others say and to determine what truly exists as opposed to what merely appears to exist. The demonstrations of II:1, in short, are nothing less than charges to study physics and metaphysics.

Maimonides describes the kind of inquiry in which he believes the demonstrations engage us at the end of I:72. Recall that, as part of his explication of the parable that man is a small world, he first describes the relation of the deity to the world as that of an intellect that rules and puts the spheres into motion, like the human hylic intellect that rules his body. This is the deity of the physical proofs, the first mover. He next follows this divine-human analogy with three significant disanalogies, and concludes by conceding that he really should have compared the deity not to an embodied intellect (either of a human or sphere) but to the human acquired intellect that is entirely separate from the body, analogous to the necessarily existent being in virtue of itself. Yet, after further reflection about these subject matters, about the celestial, separate, and acquired intellects, he adds that they are all "matters open to speculation and research; that their "proofs" are "well-hidden though correct"; that "many doubts arise with regard to them"; and that there always remain criticism and objections. His order of inquiry, he explains, was therefore to begin with what "exists in clear form," a "form" that would be challenged only by someone who is either "ignorant" or so stubborn that he would rather be self-deceived than corrected. This individual, who begins from what is clear and

who wishes to engage in true speculation should study until the correctness of everything we have narrated becomes clear to him. He then will know that this is the form of this permanent existent whose existence is beyond doubt and dispute. If he wishes to accept this as true from one to whom all the demonstrations of the demonstrated points are known, let him accept it in this way and build on it syllogisms and proofs. If, however, he prefers not to rely on authority—not even with regard to these first principles—he should study, and in due course of time it will become clear to him that matters are just as they have been stated. *Lo this, we have searched it, so it is, hear it, and know thou it.* (Job 5, 27) (I:72:193–94)

Maimonides does not say that at the end of the day this inquirer will be able to produce demonstrations *propter quid* of apodeictic truths. Through study that "begins with what exists in clear form . . . the correctness of everything we have narrated [will] become clear to" the inquirer. But "what" Maimonides has "narrated" is the fact that the natures of the different intellects

are “matters open to speculation and research,” that is, matters that are *not* to be demonstrated *propter quid*. Maimonides’ concern instead is to create a specific type of personality and to cultivate a certain kind of character. Unlike Eliphaz the Temanite, the speaker of the verse cited, whom Maimonides identifies with the “opinion of our Law” (III:23:494) in his interpretation of the Book of Job, Maimonides’ inquirer does not accept truths merely on authority. He searches until matters become clear to him through his own efforts. But the clarity and correctness of his speculation depends as much on the practices in which he engages as on the content he masters.⁶¹

61. See I:71:179.